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ABSTRACT

This paper outlines the mission and projected projects for the National Center for Research in Vocational Education for 1996. The activities are organized around two functions: research and development and dissemination and training. Research and development is composed of six substantive areas: (1) the economic context of vocational education; (2) institutions, "systems," governance, and policy; (3) curriculum and pedagogy: innovative and effective practices in vocational education; (4) students in vocational education; (5) personnel in vocational education; and (6) accountability and assessment. Dissemination and training includes a dissemination program, a professional outreach program, and an office of student of student services. Projects to be conducted in each of these areas are profiled, with information included on project director, activities, and expected products. (KC)

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NCRVE

National Center for Research in Vocational Education

University of California, Berkeley

THE 1996 AGENDA FOR THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

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THE 1996 AGENDA FOR THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

Graduate School of Education
University of California at Berkeley

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The University of Illinois
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MPR Associates, Inc.
RAND
Teachers College, Columbia University
Virginia Polytechnic Institute and State University
The University of Wisconsin

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MISSION STATEMENT

NCRVE's mission is to strengthen education to prepare all individuals for lasting and rewarding employment, and lifelong learning.

NCRVE is the nation's largest center for research, development, dissemination, and outreach in work-related education. Headquartered at the University of California at Berkeley since 1988, NCRVE is presently an eight-member consortium, with Berkeley assisted in its efforts by the University of Illinois; the University of Minnesota; MPR Associates, Inc.; RAND; Teachers College, Columbia University; Virginia Polytechnic Institute and State University; and the University of Wisconsin. The presence of the Center or one of its members in nearly every region of the country places NCRVE in contact with the enormous diversity of educational institutions and labor markets in the United States. It also connects the Center with practitioners in each geographic region of the country.

NCRVE has played a key role in developing and disseminating a new concept of vocational education as the Center works towards fulfilling its mission. NCRVE believes such education

- Offers every student the option of a high-quality, career-related course of study.
- Integrates curricula, maintaining an emphasis on learning through applied problem-solving—a strong feature of traditional vocational education—while including a rigorous course of academic study.
- Simultaneously prepares students for immediate employment, further education, and lifelong learning.

We envision the Center as serving the role of a *change agent*, rather than simply as an analyst of current patterns, a service agency, or an advocate.

Effective change must do more than transfer research knowledge to user communities. It also must do more than transfer working knowledge to other practitioners and back to researchers. Beyond transfer of knowledge is collaborative knowledge creation. Through development, dissemination, and outreach activities,

NCRVE serves as a change agent in helping schools to create answers themselves for the dilemmas they face.

The Center strives to integrate its research, development, dissemination, and outreach with practice from the outset, to the extent possible, through a collaborative change process that recognizes that the individuals involved in the production, transfer, and use of new knowledge must participate throughout the entire process of research, development, dissemination, and outreach.

This strategy involves implementing four principles:

1. Change depends on building and maintaining *networks* that support and expand the collaborative development and sharing of working knowledge, as well as research knowledge.

2. Change requires *continuous communication* among all vocational education actors who produce and use knowledge.

3. Change is *developmental*, initially helping people to commit to change and then assisting them to implement policies and practices that accomplish the desired change.

4. Change uses *multiple, simultaneous strategies* to reach a wide range of audiences, recognizing persons and the groups to which they belong change at different rates, times, ways, and so on.

Attention to these principles ensures that the Center is not simply dispersing information but is making significant contributions to the improvement of both research and practice.

The Organization of the National Center's Agenda

NCRVE organizes its activities around two functions: (1) Research and Development and (2) Dissemination and Training. Research and Development is comprised of six substantive areas and Dissemination and Training is comprised of three programs.

Research and Development Areas

Area I:	The Economic Context of Vocational Education
Area II:	Institutions, "System," Governance, and Policy
Area III:	Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education
Area IV:	Students in Vocational Education
Area V:	Personnel in Vocational Education
Area VI:	Accountability and Assessment

Dissemination and Training Programs

Dissemination Program

Professional Outreach Program

Office of Student Services

PART ONE: RESEARCH AND DEVELOPMENT

Area I: The Economic Context of Vocational Education

The changing economic context in the United States is key to NCRVE fulfilling its mission *to strengthen education to prepare all individuals for lasting and rewarding employment, and lifelong learning*. The realization of this mission partly depends on the existing nature of employment and the trends in the skills required in the workforce. Thus, this theme encompasses such issues as skill requirements, the nature of labor markets for which occupational programs prepare students, changes in skills and employment, business and industry skill standards, and shifts to flexible organization of work.

Area II: Institutions, "Systems," Governance, and Policy

In a parallel fashion, vocational programs exist in a specific institutional context, a particular configuration of education and training institutions that has been developed over the past thirty years, and that has become more complex (and will continue to do so) as new institutions and new programs are instituted. In such a world, it makes no sense to

continue examining vocational education—or indeed any other institution—in isolation from those surrounding it. This second area of research therefore examines the specifics of this evolving education and training "system," including describing the variety of institutions providing vocational education and their funding. Additionally, we will evaluate the effectiveness of these "systems."

Area III: Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education

The new vision and meaning of vocational education is now taking shape across the country. An important leadership role for NCRVE is to identify and document effective practices and policies to ensure that we connect these practices and policies with attainment of the desired outcomes for vocational education. We need to develop a deeper and clearer understanding of which outcomes are desirable for which students in which context and the practices and policies that lead to these outcomes. This contribution by NCRVE can greatly advance the adoption of new dimensions of vocational education in the United States. Linked closely to charting effective practice consistent with the new image of vocational education is removing barriers to further diffusion of the overall NCRVE strategy for transforming vocational education in the United States.

Area IV: Students in Vocational Education

Both the students of the nation's schools and their vocational education programs are in a dynamic state of change as we approach the end of the millennium. Due to changing economic and family circumstances and immigration policies, the mix of students coming to school, and ultimately to the workplace, include growing segments of youth and adults who have traditionally encountered considerable difficulties in both settings. While the new vision of vocational education promoted by NCRVE offers considerable promise for many students, the understanding of its effects on the full range of students is far from complete.

Area V: Personnel in Vocational Education

As change has continued to affect the ways educational institutions across the country operate, education professionals have been asked to run their community and technical colleges and secondary schools in new and creative ways. Of these professionals, teachers and administrators are generally recognized as those in the best position to make change really happen. If teachers and administrators embrace an innovation and support its implementation, the potential for success is greatly enhanced. An innovation may never be implemented if teachers and administrators do not support it.

The agenda of this theme area is based on two premises. First, teachers can and should serve as a professional link between the educational institution, including its philosophy, mission, goals, programs, courses, and content, and the students: where students learn, what they learn, and how they learn. Second, administrators, by virtue of their positions, are potential agents of change. Administrators can and should provide leadership in transformational ways that enable education to evolve from what it is to what it should be.

Area VI: Accountability and Assessment

The final theme area focuses on accountability and assessment. Two questions guide NCRVE's research agenda in this area: (1) How well are these systems of accountability and assessment working? and (2) What can be done to improve their usefulness and effectiveness, especially at the local level?

This area of research encompasses methodological concerns about evaluation, performance measures and standards, new forms of assessment, and other mechanisms of accountability. Understanding in all of these arenas is necessary in order to determine whether the system of vocational education has, in fact, been responsive to the changing conditions of work and whether vocational programs have prepared individuals for rewarding employment over the long run and supported the shift to a high-skills equilibrium.

RESEARCH PROJECTS

Area I:
The Economic Context of Vocational Education

Project RI.1
Strengthening Employer Participation in School-to-Work Programs

Project Director: Thomas Bailey, Teachers College, Columbia University (Year 2 of 2)

Keywords: technical assistance: employer participation; school to work; school-to-employer connections

The overall purpose of this project will be to work with individual sites that are receiving support from the School-to-Work Opportunities Act to help them develop and strengthen their efforts to recruit, secure, and strengthen employer participation in their school-to-work programs. The sites with which we will work are all building on past programs, such as cooperative education, that have included employer participation and employer-provided work-experience sites. Our project will first examine the past experience that these sites have had with recruiting and working with employers. We will do this through interviews with program personnel and through a telephone survey of participating and nonparticipating employers. We will then work closely with the sites to develop their expanded efforts, tracking their programs as they are put into practice.

A team from the NCRVE site at RAND, led by Cathy Stasz, will also participate in this project.

By the middle of the project's second year, we will produce brief critical summaries of the employer participation efforts in New York State and Los Angeles. At the end of the project we will write a report that will summarize early findings from the employer survey, and evaluate the progress of the programs. These will be expanded into practitioner-oriented briefs that can be used by employers, unions, local-level educators, and states to help them strengthen their efforts to involve employers.

Our work will be used to help the specific efforts of our sites. Additionally, our final report will be designed to use the lessons and insights developed in our interactive

work with specific programs to help sites throughout the country. Project outcomes will be further disseminated at the joint NCRVE/Jobs for the Future National Leadership Forum and at other conferences.

Our primary audience will be the staff and employers involved with the programs with which we are working. Dissemination of results to them will take place through the planned activities and reports of the project. Other audiences of interest consist of employers and educators elsewhere who are trying to implement school-to-work programs, as well as state and federal government personnel overseeing the implementation of the STWO Act. These groups will be reached through the final report of the project, the practitioner-oriented briefs, speeches and presentations at the American Vocational Association convention and to various groups of educators and policymakers, and through a conference on employer participation. We will also address other researchers and academics through the publication of articles and through presentations at conferences such as the American Educational Research Association.

Area II:
Institutions, "Systems," Governance, and Policy

Project RII.1
Reshaping Vocational Education in the Context of the Multiple Reforms in Secondary Schools

Project Director: Judith Warren Little, University of California at Berkeley (Year 2 of 2)

Keywords: educational reform

The nature and extent of vocational reform, its goals, and its "fit" with other educational purposes remains a topic of debate among policymakers, educators, and the public. This project offers a timely opportunity to inform those debates by examining the intersection of the various reform currents, the ways in which they play out in schools, and the ways in which they are shaped by policy at multiple levels.

The project is organized into two components. First, a review of policy initiatives and strategies in selected states (the "state reviews") will help us to trace the specific

ways in which states are positioned to foster improvements in the transition from school to work. Second, selected local case studies (the "local contexts of reform") represent contrast cases with respect to local and state policy environments, and permit investigation of the possibilities for work education that reside in the most widely publicized of the various secondary reform models.

Two publications will be produced to support the development of policy and program alternatives at the local and state levels. The first will report the first stage of "state reviews," and will be prepared in a format intended for use by state policymakers and program developers.

The second set of materials will incorporate two independent case study reports—one on state-supported reform initiatives and one on local reform driven by the principles of the Coalition of Essential Schools. It is intended for use by local and state policymakers and educators.

Project reports will be distributed through NCRVE's distribution network and appropriate conference presentations. Papers based on project findings will be prepared for appropriate journals or for inclusion in books. In addition, we anticipate preparing short summaries of the larger project reports for audiences of practitioners and policymakers, as well as participation in a small number of large-scale conferences.

Project RII.2
Tech Prep as a School-to-Work Vehicle to Educational Reform

Project Director: Debra D. Bragg, University of Illinois (Year 2 of 2)

Keywords: Tech Prep; school to work; educational reform

This multiyear study will address three research objectives: (1) to examine student demographic characteristics, academic abilities, and educational and occupational aspirations; (2) to describe the array of educational experiences created by local consortia and states for student Tech Prep participants and identify the relationships among these educational experiences and student characteristics; and (3) to ascertain student outcomes (benefits) associated with varying levels of experience with Tech Prep curricula and

programs. The research methodology will include a national follow-up survey as well as case studies involving student cohort groups in four to six local Tech Prep consortia in the United States. The findings will have implications for local, state, and federal policy and practice regarding Tech Prep, school-to-work, and educational reform.

Two deliverables will be prepared. First, a monograph will be produced to summarize the findings of a national follow-up study of Tech Prep and the related school-to-work opportunities (STWO) policy at the local level. The report will capture an extensive amount of information about how local consortia implemented Tech Prep during the 1994-1995 academic year in relation to the 1992-1993 academic year when the initial phase of the survey was conducted. One section of the report will present findings about Tech Prep students to help address a void in reliable information about the population of students in local Tech Prep programs.

Second, a final technical report will be produced to summarize the findings of the case studies designed to ascertain in-depth information about Tech Prep student participants, outcomes, and benefits.

This project's findings will be disseminated through annual conferences of the National Tech Prep Network, American Vocational Association, and the American Association of Community Colleges. These presentations will be designed specifically to fulfill the needs of several audiences: local, state, and federal Tech Prep practitioners and policymakers; other educational reformers; business representatives and others engaged in Tech Prep and STWO; educational researchers; and teacher educators. The findings will also be submitted to major professional periodicals such as *Educational Evaluation and Policy Analysis* and the *Vocational Education Research Journal*.

In addition to these national meetings and publications, findings from this project will be presented at other local and state meetings throughout the project year.

Project RII.3

Public University Responsiveness to Lower School Reform

Project Directors: Kimberly Ramsey, RAND
Alexander McCormick, MPR Associates, Inc. (Year 2 of 2)

Keywords: educational reform; nonstandard courses/credits; four-year postsecondary public institutions

The explosion of education reforms in the past decade is now resurrecting historical tensions between the public university and the public school. Vocationally and academically inspired reformers now share a common problem: both experience reluctance by the university to accept new nonstandard courses and assessments. Ironically, these nonstandard courses and assessments resulted from efforts to make school more meaningful to students by integrating curricula and assessing mastery and performance. In spite of the substantial private, state, and federal investment in these reforms, they will not undergo the test of systemwide implementation if a full range of American youth and educators are not participating. The university holds the key because college-bound youth and parents will not participate if they believe their chances for university admission are compromised. This two-year project focuses on two questions: *How are state universities coping with curricular experiments?* and *What difficulties have reformers encountered with universities?* To answer the questions, we propose to undertake a historical review of university–high school relations followed by case studies of how universities located in four different states presently cope with efforts by high schools and community colleges to reform. We then will scale up our analytic efforts to the fifty states, followed by a forum for reformers and university leaders to discuss strategies needed to support promising and educationally sound reforms.

We will produce two documents. The first is a final technical report that will include the historical analysis and results from cross-case analysis of the state case studies and the demonstration forum. The report, produced by RAND, should be of interest to researchers, universities, reformers, and the policy community.

The second document, produced by MPR Associates, is a guide for reformers that will include the results of the fifty-state survey.

In addition, we will convene study participants at a forum designed to further study efforts beyond analysis. We plan a development activity between reformers and university leaders to address opportunities and barriers to lower school reforms.

We will report our findings widely in the practitioner, policy, and research communities through presentations at national meetings hosted by NCRVE, American Vocational Association, American Vocational Education Research Association, and American Educational Research Association. We also expect to produce journal articles for policy-oriented journals. Dissemination will occur with the convening of the forum.

Area III:
Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education

Project RIII.1
Learning to Work: In School and On the Job

Project Director: Cathy Stasz, RAND (Year 2 of 2)

Keywords: school-based learning; work-based learning; model development: learning

Recent school reforms call for redesigning educational programs to include both school-based and work-based learning (WBL) components, but precise details about the nature of learning and teaching—what is to be learned or how it should be taught—have not been worked out. In this study, we plan to develop a normative model—or learning paradigm—that can aid in the design of both school-based and work-based education and training programs. The model will be based on recent research in cognitive science that we have recently applied to describe effective classroom teaching in vocational and academic classrooms. In this study, we will extend its application to work-based learning, by conducting in-depth research in targeted WBL programs, using ethnographic and case study methods. The unified model can provide a tool for designing and evaluating a student's *entire program*, including school-based and work-based components, to ensure that the necessary content is covered and that the instructional

activities support effective learning and program goals. The project includes development activities with local school-to-work programs.

Two publications will be developed. A technical report will describe the theory and research that underlies the normative model and the findings from the case study analyses. A short policy brief will discuss implications of the research for policy. This brief will be widely disseminated to the policy community.

The deliverables will be disseminated through regular NCRVE and RAND dissemination channels. Research findings will be disseminated through professional meetings such as American Vocational Association and American Educational Research Association.

Project RIII.2
Linking the NCTM Standards to Emerging Vocationalism

Project Director: Victor M. Hernández, University of Wisconsin (Year 2 of 2)

Keywords: skill standards; integration; mathematics

This two-year project will examine the nature and character of efforts to integrate mathematics–vocational education learning initiatives in secondary schools and postsecondary institutions which have adopted the Curriculum and Evaluation Standards of the National Council of Teachers of Mathematics (NCTM). During the first year, promising sites were identified to produce new insights regarding the links between vocational education and mathematics integrated learning and teaching experiences occurring in both school and work settings based on NCTM standards. Case studies of four to six programs with significant integration efforts representing different settings (e.g., geographical location) will be conducted to study the effectiveness of applied models of integration and different curriculum materials at both the secondary and postsecondary levels. Our approach will be based on collaborative research where researchers and instructors work closely in partnership.

This project will be a joint undertaking of the University of Wisconsin and the National Center for Research on Mathematical Sciences Education.

The major products of the project will include the following:

- Detailed case studies of four to six innovative programs/initiatives in which the NCTM standards are being used
- A "national agenda" document produced by project participants in collaboration with the project steering group and project staff
- An evaluation report of curriculum materials being used on effective mathematics integration
- A set of guidelines for staff development on mathematics integration outlined by project participants in consultation with the project steering group and project staff

Other outcomes will include the following: conference presentations, conference papers, journal articles, texts of paper presentations, evaluation of promising programs, survey instruments, and interview information.

Project RIII.3
High-Performance Learning in the Fast Food Industry

Project Directors: James Stone III and Theodore Lewis, University of Minnesota (Year 2 of 2)

Keywords: work-based learning; high-performance learning

This study is designed to examine the impact of specific employer interventions on occupational and academic development of young people who work in traditional "youth jobs"—especially in fast food and retail. These interventions include the use of mentors, relating the youths' employment to their school work, and involving parents in their child's work experience.

We have modified the design from Year One to include a survey of current industry practices in working with youth in fast food and retail jobs. This new component to our study will parallel the methodology of the *School-Based Enterprise*

project sponsored by the NCRVE in 1995. We are presently identifying work-based learning initiatives sponsored by fast food businesses nationally. This includes some of the more well-known initiatives such as the McDonald's Youth Apprenticeship program coordinated through Northern Illinois University. However, we have found evidence of local initiatives we intend to investigate as well.

We intend to provide a description of these programs based on the conceptual framework developed for this study. This description will be based on telephone surveys using a protocol that is in development at this time. We will identify up to five local firms for in-depth visits where we will interview student-workers and managers regarding the constructs of the study. One set of visits is scheduled with a locally owned pizza enterprise [15 stores, approximately 600 employees]. The results of this part of the study will be a description of current fast food industry efforts to upgrade the working environment for young people.

We continue to develop sites for the quasi-experimental component to our study. Two sites have agreed to initiate data collection in January 1996. One is a national retail firm; the other is a regional franchise of a national fast food business. Two other sites have been contacted and are considering cooperating with this project. We will continue to pursue these sites as back-up in the event of difficulties with either of the two sites that have agreed to cooperate.

As a result of our first-year activities, we have been able to develop, pilot, and refine our design, instruments, and data collection procedures. In addition, we have developed an interview and observation protocol for the expanded part of our study. We are completing the underlying conceptual framework that supports the study.

We envision two final reports arising from our efforts. The first will be a report of the full study intended for school audiences. In this report, we expect to discuss strategies for using the more common youth-work opportunities in school-to-work efforts. We intend to complete a second report for community and business audiences. In this report, we expect to discuss the value to business of enhancing the traditional youth-workplace.

Area IV:
Students in Vocational Education

Project RIV.1
Studies of Exemplary "Holding Power" Vocational Programs

Project Directors: Robert Crain and Robert Thaler, Teachers College, Columbia University
James Stone III, University of Minnesota (Year 2 of 2)

Keywords: dropouts; exemplary programs

This study is designed to identify vocational education practices which reduce absenteeism and dropout rates. It does so by making case studies of successful and unsuccessful vocational programs, using data from New York City programs with low and high absenteeism and dropout rates.

These results, as well as results from other data analysis of New York City career magnet schools, will be disseminated and used for development work with local and state officials in New York and elsewhere, and with federal officials.

At the end of the project, a final report summarizing the research on dropouts will be produced. An article for submission to a prominent journal will also be submitted. If one or more *New York Times* articles results from the study, we will set up a system of providing callers with brief abstracts of the research and advise them to purchase reports from NCRVE. We will accept invitations to speak at conferences.

Project RIV.3

An Analysis of Diversity Training Provided by Business and Industry

Project Directors: Rose Mary Cordova-Wentling and Mildred Barnes Griggs, University of Illinois (Year 2 of 2)

Keywords: diversity training; work-based learning

Demographers predict that by the year 2000, 85% of the new workers will be a combination of immigrants, women, and non-European Americans. Increasingly, workplaces will face the same issues and problems that public schools have been facing with regard to understanding and utilizing the full range of human potential within this very diverse population. This two-year research project is designed to study a selected number of major employing companies with exemplary diversity training programs and diverse workforces to identify policies and practices that create work environments that are conducive to the development of all youth in school-to-work programs.

Deliverables

- A final research report
- A handbook to use in vocational education and in business and industry related to diversity in the workplace
- An in-depth literature review on diversity training

The target audiences for this study's outcomes consist of vocational educators, school-to-work directors, human resource directors, policymakers in education and business and industry, diversity trainers, and professional organizations (e.g., American Vocational Association, American Society for Training and Development, National Business Education Association, and American Educational Research Association). Dissemination of results will occur through NCRVE's dissemination system as well as through presentations at professional meetings (education and business) and publications in research, business, and practitioner journals.

Area V:
Personnel in Vocational Education

Project RV.1
Facilitating School-to-Work Transition: Teacher Involvement and Contributions

Project Directors: B. June Schmidt and Curtis R. Finch, Virginia Polytechnic Institute and State University (Year 2 of 2)

Keywords: school-based learning; work-based learning; school-to-employer connections

To meet the school-to-work goal of moving from isolated programs to a system that assists large numbers of students to successfully transition to work, all school personnel must understand, support, and contribute to the effort. This study will examine the attitudes, expertise, and knowledge that teachers in collaboration with others, both in the schools and in the workplace, must have to establish and sustain long-term links with employers that facilitate students' transition to work. Information about teacher involvement in and contributions to the facilitation of school-to-work transition will be gathered via community studies.

This field-based research will provide teachers with valuable information about the attitudes, expertise, and knowledge they will need to successfully fulfill their responsibilities in school-to-work programs. The study results will also benefit policymakers, teacher educators, corporate training managers, and others by providing useful information about strategies that teachers can use to link schools and workplaces for effective STW transition.

Deliverables

- A working paper will be made available that describes how selected schools and communities have successfully involved teachers in STW transition efforts.
- A research report documenting the research outcomes will be prepared that includes a framework and accompanying strategies to guide development of attitudes, expertise, and knowledge that both practicing and prospective teachers need to successfully interface with employers.

- A practitioner guide focusing on practical application of the research results will also be prepared.

Dissemination activities will focus on making the NCRVE's clients aware of the project research report and the practitioner guide. These products will be made available through the NCRVE Materials Distribution Service. Products will be advertised through various channels such as *CenterWork*, electronic networks, and related professional organization newsletters. The products will be described at relevant national STW conferences and workshops. Additionally, project-related presentations will be made at national conferences such as the American Vocational Association convention and the American Educational Research Association meeting.

Project RV.2
Identifying Change Agents:
Developing a Profile of Postsecondary Vocational Teachers

Project Directors: Dominic Brewer and Maryann Gray, RAND (Year 2 of 2)

Keywords: community colleges; educational reform

Teachers and administrators at postsecondary vocational institutions play a pivotal role as change agents in successfully promoting and implementing reforms. Building on previous NCRVE work, this study will gather new data via a nationally representative survey of postsecondary vocational and academic teachers, and through case studies of several community colleges in different stages of implementing vocational education reforms. Practitioner input will help guide this research design. The focus is on the level and nature of faculty connections to local labor markets, and the individual and institutional factors that hinder or facilitate connectivity. The project contains specific development activities designed to assist community college practitioners in promoting reform.

A technical report will detail the project's methodology, including survey instruments. It will present a quantitative and qualitative analysis of survey and case study data. Project conclusions and recommendations for development activities will be

made. One or two articles will be submitted to academic journals based on the technical report.

A policy brief will summarize the project's findings, oriented towards postsecondary instructors and designed to assist in the effective implementation of reform through concrete suggestions of how to achieve strong links to local labor markets.

The deliverables will be widely distributed to state-level officials; appropriate national groups such as the American Association of Community Colleges, the League for Innovation in Community Colleges, American Vocational Association; and possibly to community colleges themselves. In addition, we will present our findings at professional meetings such as that of the American Educational Research Association.

Project RV.3
The NCRVE Initiative on Teacher Education

Project Director: L. Allen Phelps, University of Wisconsin (Year 1 of 2)

Keywords: educational reform; professional development; school to work

In response to the call for educational reform in high schools, mounting concern has been expressed regarding the role of teacher education and professional development in sustaining these reforms. To date, relatively little attention has been given to this matter in vocational-technical education and school-to-work efforts. In this two-year project, NCRVE investigators will undertake a series of synthesis, dissemination, and field-based inquiry activities focused on clarifying and articulating the multiple roles of teacher education programs. More specifically, the activities will examine and synthesize the extant research, current initiatives in teacher education/professional development, and selected innovative practices aimed at improving the repertoire of both practicing and future teachers to work effectively in STW systems.

Deliverables

In 1996, the following dissemination efforts will occur:

- A 1-page flyer will be prepared and disseminated describing the purposes and activities of the NCRVE Teacher Education Initiative. This informational piece also will be available on the NCRVE and Center for Education and Work (University of Wisconsin) World Wide Web home pages.

- The results of the synthesis research will be presented in an article for publication in one of the refereed journals of the American Educational Research Association or American Association of Colleges for Teacher Education.

- A preliminary set of "design principles" for use in teacher education and professional development programs will be shared with various stakeholders in late 1996. These principles will emphasize key implications for teaching and learning emerging from the research on education and workplace connectivity.

Area VI:
Accountability and Assessment

Project RVI.1
Developing a Typology of Skill Standards Models

Project Director: Thomas Bailey, Teachers College, Columbia University (Year 2 of 2)

Keywords: skill standards; model development: skill standards development

The development of a national system of voluntary industry skill standards has become a central element in education reform. The purpose of this project is to develop a conceptual framework/typology which encompasses the different approaches to skill standards development, both in the United States and abroad. The many approaches that exist now can undoubtedly be simplified and categorized into a number of basic approaches.

Such a classification effort has several benefits. It forces the analyst to differentiate the core components of an approach from the more peripheral ones, and establishes a smaller number of models to greatly facilitate diffusion and evaluation.

The project will be based on an analysis of existing skill standards systems in the United States, including the current pilot projects from the Departments of Labor and Education. In conjunction with that work, David Finegold at RAND will review experience with skill standards in Europe and possibly other countries.

In developing and disseminating the results of this project, we expect to work closely with the National Industry Skill Standards Board. Indeed, our goal is to develop a framework that the board can use in its work. In addition, we expect that the results of this project will be useful for any practitioner or policymaker involved with the development and implementation of industry skill standards. These include staff at the Departments of Education and Labor who will be working with the board and overseeing the pilot projects, state-level employees working on standards, and local-level program operators putting programs into practice.

A draft report will be developed for the NCRVE conference on skill standards planned for May 1996. (The draft will be revised and incorporated into the report produced for the skill standards conference, which is described in "Other Dissemination and Training Projects.") In addition, a report on the international perspective will be produced in 1996.

This project will make extensive use of group and conference/meeting discussions in an effort to share and gather information. We will utilize current contacts and relationships with industry and union representatives, policymakers, substantive experts, and educators in our efforts to disseminate our results. The final report will be distributed to interested project directors involved in the federal skill standards initiatives as well as policymakers, academic and research staff members, and education practitioners.

Project RVI.2
Which Alternative Assessments Hold the Greatest Promise for Vocational Education?

Project Director: Brian Stecher, RAND (Year 2 of 2)

Keywords: assessment, alternative

The goals of this study are (1) to investigate the potential of various forms of alternative assessment to meet the needs of vocational educators, and (2) to provide vocational educators with useful procedures for judging the applicability of alternative assessments in their own setting. The study will combine reviews of relevant literature with empirical investigations of portfolios, performance events, and other educational assessments.

A project report will be produced describing the strengths and weaknesses of assessment alternatives, and presenting profiles of the alternative assessments studied.

The project also will produce training materials to help vocational educators evaluate or develop alternative assessments.

The beneficiaries of this work include vocational educators at the local level as well as educational policymakers at the state and national levels. For those at the local level, the project will provide helpful guidance about the use of alternative assessments. For state and national policymakers, the project will evaluate the applicability of promising assessment options to the vocational setting and will offer some critical judgments about current vocational assessment prototypes.

The result of this project will be disseminated in the form of written materials and training workshops. In addition, we will make one or more presentations at national conferences.

Project RVI.3

Case Studies of Skill Standards in Professional Education: Lessons from the Accounting Profession and Aviation

Project Directors: Thomas Bailey, Teachers College, Columbia University
Gary Hoachlander, MPR Associates, Inc. (Year 2 of 2)

Keywords: skill standards; school-to-employer connections

This project will consist of two related case studies—one in accounting and one in aviation. The accounting case study will be carried out under the direction of Thomas Bailey at Teachers College, while the aviation case study will be the responsibility of Gary Hoachlander at MPR Associates, Inc. Each of these case studies is described below.

Industry Skill Standards in Accounting

An expanded system of industry skill standards is one feature of the school-to-work initiative that sets it apart from previous school reform models. Although there is widespread support for skill standards, many practical and implementation issues have not been resolved.

The United States already has an extensive system of professional education that includes skill standards and certification systems as well as widespread employer participation. The goal of this project is to study one case of professional education—the training and certification of accountants—in search of lessons for the school-to-work model concerning skill standards and employer participation.

Studying professional training and certification in an occupation such as accounting will provide guidance in resolving many of the previously mentioned implementation issues as they relate to current School-to-Work initiatives.

This project will help to support and inform a companion project in this theme area, *Developing a Typology of Skill Standards Models* (Project RVI.1).

A draft report will be available by March 1996, and a final report will be completed by the end of 1996.

The audience for this project will be the diverse group of individuals, educators (researchers and academics as well as practitioners), trade and professional associations, employers, unions, and policymakers, as well as other governmental regulatory and oversight agencies involved in the skill standards movement. We will utilize our initial findings in group discussions consisting of the above-mentioned participants to disclose any applications for professional training experiences in current efforts involving skill standards, certification, work-based education, and the broader context of STW reform. The general dissemination plans for this project will also be developed as part of the broader strategy of dissemination for the collection of NCRVE skill standards projects now under development.

Industry Skill Standards in Aviation

GOALS 2000 established a National Skill Standards Board to oversee the development of national standards for American industry. An initial task of the board is to develop a framework for building a national system, including guidelines for the types of standards that are needed and how they might be implemented.

Ironically, much of the development effort has proceeded thus far on the mistaken assumption that America has no experience with industry standards. Indeed, one of the best examples of national standards developed in partnership between industry and government is the U.S. aviation industry. Over the past 50 years, a comprehensive and detailed set of standards have emerged for pilots, air traffic controllers, airframe and power mechanics, and others. This experience, uniquely American, provides a rich history, which, if carefully mined, could yield important insights into the development of a national system of industry skill standards.

The primary purpose of this study is to use findings from the study of a major American industry with a long history of public/private development of skill standards to generalize about the kind of national system that would best suit a wide range of economic activity. Thus, the project is not about aviation per se, but rather the relevance of the development and use of standards in aviation to a more general system of national industry standards. We are especially interested in distinguishing the public and private purposes served by skill standards; the degree of occupational specificity that is appropriate; the kinds of standards needed; and ongoing processes for ensuring that standards are relevant, fair, and able to be assessed reliably and consistently.

This project will help to support and inform a companion project in this theme area, *Developing a Typology of Skill Standards Models* (Project RVI.1).

The study will produce an interim report by April 1996 and a final report by December 1996.

The audience for this project is primarily state and national policymakers concerned with the development of industry skill standards. The project director is available to work with the National Skill Standards Board as the agenda of that group begins to take shape during the coming years. The project's deliverables will be distributed to this board, as well as to related state-level groups working on industry skill standards. The results of the study should also be of interest to those working on various aspects of "alternative" assessment, especially performance testing, which has long been the cornerstone of certification in aviation. The project director will also participate in NCRVE-sponsored conferences on skill standards and make presentations at relevant sessions of national organizations, including the American Vocational Association, American Education Research Association, and related groups.

Project RVI.4
NCRVE Annual Report on School-to-Work

Project Director: David Stern, University of California at Berkeley (Year 4 of 5)

Keywords: school to work; youth apprenticeship

Section 404(b)(2) of the 1990 Amendments to the Carl D. Perkins Vocational and Applied Technology Education Act requires that the National Center for Research in Vocational Education "annually prepare a study on the research conducted on approaches that lead to effective articulation for the education-to-work transition." This activity will fulfill that requirement.

This study will also provide an initial description of local and state activities pursuant to the School to Work Opportunities Act of 1994.

Three distinct kinds of information will be included in the 1996 report: (1) a description of local and state activities under the School-to-Work Opportunities Act; (2) a synthesis of evaluation results from youth apprenticeship pilot projects; and (3) an update of significant new research on other school-to-work programs.

The main product of this study will be the 1995 report to the federal authorities as required by the 1990 Perkins Amendments. It will be published as a report by NCRVE. It may subsequently be published by a commercial publisher as a book or monograph.

In addition to the distribution required by law (i.e., the Secretaries of Education, Labor, and Health and Human Services, the Senate Committee on Labor and Human Resources, and the House Committee on Education and Labor), complimentary copies of the report will be sent to a list of approximately 100 high-level state and federal officials and leading researchers in the field. The report will also be available for sale from the NCRVE Materials Distribution Service.

DEVELOPMENT PROJECTS

NCRVE's development activities bring NCRVE's work closer to points of practice. Working face-to-face with practitioners, we facilitate change, learn about the requirements for change, and then spread the word to other sites in the next stage of readiness. As equal partners, NCRVE researchers and practitioners jointly determine the design and together engineer, implement, and document innovative activities. Development activities provide us with the in-depth information the field demands for both the design and implementation of policy that best enables change.

Our development sites and their work will provide formative data, answers to the "what is it" "how to do it" questions, and a process for identifying additional issues and questions for further study. With this information, we can create and provide richly informed descriptions, evaluations, and strategies. Ultimately, development activities will create success stories that are exemplars of policy translation, and will develop a cadre of leading practitioners.

A particular focus of the development work is to provide NCRVE with opportunities to test, refine, clarify, and more deeply understand the reform principles and ideas advocated and mandated in 1990 Perkins Act and the 1994 School-to-Work Opportunities Act. The central points are (1) integration of vocational and academic curriculum, (2) combination of work-based with school-based learning, and (3) creation of links between secondary and postsecondary education.

We have established the following benchmarks to assess our success in meeting this purpose. Through development activities we will

- deepen and expand our knowledge and vision of effective schools and colleges—gathering more descriptive knowledge of programs as well as the complex implementation processes involved in creation, institutionalization, and replication.
- discover, through evaluation, the validity of our theories.
- synthesize our lessons from research, development, and training activities and therefore improve our ability to serve the field by creating and disseminating information that is more user-friendly.

To this end, researchers and practitioners play a variety of roles in the development of self-sustaining sites and the simultaneous study of reform. For researchers, this includes coaching, mentoring, planning, training, evaluating, and developing local infrastructure. For practitioners, in addition to actual innovation, the list includes defining questions and design, and documenting change through data collection or journal writing. Equally important to development is an iterative process, cycling repeatedly between design, implementation, testing the design efficacy, and then redesigning once again.

Four different types of development activities are funded:

1. Initiatives to form more intensive long-lasting relationships by creating networks that will unite schools, colleges, and NCRVE as we all work toward implementing key ideas articulated in the Perkins and School-to-Work Opportunities Acts.

2. Activities which add a development component to NCRVE research projects.

3. Projects that improve NCRVE's capacity to respond to requests from the field for assistance in implementing the 1990 Perkins Act and the 1994 School-to-Work Opportunities Act.

4. Activities to collaborate with other organizations such as OVAE and state departments of education to discover answers to pressing questions from the field.

Area II:
Institutions, "Systems," Governance, and Policy

Project DII.1
New Designs for the Two-Year Institution of Higher Education

Project Directors: George Copa and William Ammentorp, University of Minnesota (Year 2 of 2)

Keywords: community colleges; model development: community college design; educational planning

The purpose of this project is to identify, analyze, and synthesize information from several sources in order to develop new designs for two-year institutions of higher education. The new designs will deal with such important issues as learner outcomes, learning processes, organizational structures, approaches that encourage partnerships and collaboration, staffing patterns, and cost.

The deliverables will be an executive summary and final report describing the educational specifications and supporting rationale for new designs for two-year institutions of higher education. The executive summary and final report will be produced at the end of 1996.

The basic plan for dissemination will begin at the start of the project and continue through each phase given the nature of the process used and individuals collaboratively involved. A major effort will be made specifically to plan the dissemination of the new designs for two-year institutions of higher education widely and boldly across the

country. While the primary market will be institutions of higher education with opportunities for major restructuring and renovation or new buildings, the designs will also have implications for institutions with more modest improvements in mind. Another market will be policymakers, state and national agencies and organizations, and national leaders influential in the design of two-year institutions of higher education.

Project DII.2
Workforce Programs in Community Colleges: Investigating the Changing Landscape

Project Director: W. Norton Grubb, University of California at Berkeley (Year 2 of 2)

Keywords: school to work; community colleges; technical assistance: employment issues

Over the past three decades, the occupational programs of community colleges and technical programs have increased and multiplied. The "mainstream" certificate and Associate programs have been joined by such initiatives as contract education, Tech Prep linkages with high schools, short-term job training programs, and "economic development" programs for firm-specific training. Reforms have been experimented with, including among others the integration of occupational and academic education, performance measures, school-to-work and work-based learning, TQM, student tracking and follow-up, and business partnerships.

These developments have produced a "workforce landscape"—a complex of programs and initiatives—that is often difficult to understand, even for community colleges themselves. Programs often don't communicate with one another, the varying purposes for students enrolling in various programs is difficult to surmise, and the effects of all this activity are sometimes unclear.

Because knowing what the workforce landscape looks like is difficult in many community colleges and technical institutes, institutions often have difficulty in responding to these different pressures, in setting priorities, or in taking legislative initiative in their states. To remedy this, as part of a joint effort among NCRVE, the League for Innovation in the Community College, and the National Council on

Occupational Education, this project, in its second year, will "map" the workforce landscape at up to eight community colleges and technical institutes in order to describe the changing pressures for states and federal governments and from employers, and to clarify the alternative directions community colleges might take. While this small number of community colleges is too few to be representative of the many institutions, states, and local labor markets across the country, we anticipate that this kind of analysis could lead to more general surveys of community colleges in the future, once we know the right kinds of questions to ask.

Mapping the Workforce Landscape

The initial phase of the study will seek to draw as comprehensive a picture as possible of the variety of workforce programs being offered in particular community colleges. Data will be collected about *every* occupational and workforce program in the small sample of community colleges, including such information as enrollment, completion, student intentions, and student follow-up data. The fiscal incentives, enrollment trends, labor market conditions, institutional imperatives, and other causes of the programs' patterns will also be examined. In order to see how colleges know what they are doing and how readily they can respond to various demands for accountability, the extent of institutional research will also be detailed.

Examining External Pressures

A second stage will gather information about those forces which are now changing the provision of occupational education of all kinds. An attempt will be made to amass information of several different kinds, and from several different sources. This process will include interviews with state-level officials about state trends, an examination of state responses to consolidation of federal funds, an analysis of enrollment and labor market trends, interviews with college administrators about local pressures and politics, and interviews with local business representatives about labor market patterns.

A Collaborative Research Approach

This research stage will ideally be carried out as a collaborative process. The institutional research office, dean of occupational education, and other interested individuals at the institutions selected will collect much of the local information, guided

by protocols developed by the Berkeley staff. Berkeley staff will conduct those interviews that might be biased if carried out by institutional researchers (e.g., interviews with local employees and state officials). The goal will be to combine information available only to those working within particular community colleges with information more easily collected by "outsiders."

Interpreting the Results (Deliverables)

A crucial step in this project will be interpreting the information collected and clarifying its implications for the future development of occupational preparation in community colleges. This stage will initially involve the researchers and administrators at the specific local colleges, and then the advisory committees from NCRVE and the League.

A monograph will be published jointly by NCRVE, the League, and NCOE. Other articles and shorter summaries also are anticipated.

Project DII.3
Urban Schools Network Development Project

Project Director: Erika Nielsen-Andrew, University of California at Berkeley (Year 4 of 5)

Keywords: network development; integration; school to work; school-to-employer connections; Tech Prep; technical assistance: school-to-work issues; urban schools

The purpose of this project is to deepen and intensify NCRVE's relationship with schools and institutions around the country engaged in the implementation of integration in (1) vocational and academic education, (2) classroom-based and work-based learning, and (3) secondary and postsecondary institutions. Building upon the efforts of the Urban Schools Network, we will (1) expand our teams to deepen the capacity of the entire school and district, (2) intensify our assistance to schools through field consultants and cross-team work, (3) unite our efforts with other organizations to better assist the teams,

and (4) make better use of performance data to document school progress and create a culture of continual learning and improvement.

This project will have several deliverables. In addition to reports from each Urban Schools Network site, there will be three briefings within NCRVE publications about our lessons from network schools. Briefing examples include the development of products that provide blueprints for action; provide a firsthand view of workable models of reform; organize exemplary communities as a clear and forceful voice in policy; or integrate study communities into all aspects of NCRVE advocacy, further research, or technical assistance. Briefings will prepare the field and inform policy of central design elements and expansion strategies, provide detailed profiles of key features and change strategies of study sites, function as "how to" guides on design, or report on research findings to add to the NCRVE data bank on strategies that work. We need deliverables that effectively convey the rich body of information and results discovered in these schools. There will also be an end-of-year report that links both summative and formative data about the Urban Schools Network. This document can form the basis of a proposal to secure more funds, market our successes, and redesign our efforts for the following year.

Dissemination of information regarding the Urban Schools Network will be a major responsibility of this staff. The primary avenues for dissemination of information will be direct mailing; the Center newsletter; and *Urban Update*, the Network newsletter.

Area III:
Curriculum and Pedagogy:
Innovative and Effective Practices in Vocational Education

Project DIII.1
National Consortium for Product Quality (NCPQ)

Project Directors: Barbara Dougherty and Margaret Elliibee, University of Wisconsin
(Year 4 of 5)

Keywords: curriculum standards; exemplary curriculum; information dissemination; technical assistance: curriculum improvement

The NCPQ seeks to build a curriculum service system through the development and advancement of three key objectives: (1) to demonstrate and evaluate standards for quality curriculum products designed for secondary and postsecondary school-to-work programs; (2) to identify, review, and disseminate information on quality curriculum products through extensive curriculum reviews and product profiles that detail quality curriculum and its implementation in the field; and (3) to provide technical assistance to the field that emphasizes curriculum enhancement through the utilization of the NCPQ Standards, cutting-edge integration strategies, and concepts of authentic pedagogy.

Deliverables

The deliverables available within the fourth year of the project include the following:

- *Activities*

  Individual Presentations/Workshops—American Vocational Association; American Vocational Education Research Association; Vocational Instructional Materials Section (AVA); Midwest Leadership Conference; Urban Schools Network (NCRVE); and Work Now and in the Future Conference.

  Technical Assistance Activities/Inservice—as requested by local, state, and national school-to-work administrators and staff. Activities will be dictated by budget and time constraints.

- *Information Analysis*—Update of literature review focusing on the design and development of quality school-to-work curriculum, as well as an annotated bibliography on research related to the development and implementation of curricula standards.

- *Revised Product Profile Format*—The NCPQ Product Profile will incorporate Product Implementation Assessment (PIA) information.

- *Compilation of Product Profiles*—Ten to fifteen NCPQ Product Profiles will be compiled through VocServe (NCRVE's electronic bulletin board), *Standard Times*, an annual Product Profile Volume, and print packets available upon request.

- *Newsletters*—At least one issue of the NCPQ *Standard Times* will be published.

- *Evaluation Instruments*—Updates of the Curriculum Review Instrument, Product Implementation Assessment, and workshop evaluations will be completed.

- *Train-the-Trainer Materials*—NCPQ materials used in workshops and inservices (e.g., *Standard Times*, Product Profiles, Pedagogy Strategies, and excerpts of quality curriculum) will be developed into coordinated train-the-trainer materials.

- *Product Implementation Assessment (PIA) Outcomes*—The implementation of reviewed quality curriculum products by practitioners will be studied. As a result, the findings of this initiative (e.g., product adaptation/adoption; engaged instructional and assessment strategies; content modification/enhancement) will be made available through the NCPQ Product Profiles and informational articles placed on VocServe and in *CenterWork*.

- *NCPQ Curriculum Standards Outside the Secondary Environment*—The NCPQ curriculum standards will be compared and contrasted with any existing workplace curriculum standards and postsecondary school-to-work curriculum standards.

Project DIII.2

Learning All Aspects of the Industry: Curriculum Practices and Processes

Project Directors: Curtis R. Finch and Nevin R. Frantz, Virginia Polytechnic Institute and State University (Year 2 of 2)

Keywords: all aspects of the industry; exemplary curriculum; technical assistance; curriculum/training material

The importance of student exposure to all aspects of the industry (AAI) has been clearly emphasized in the Carl D. Perkins Vocational and Applied Technology Act of 1990. This legislation provides educators with opportunities to design and implement AAI curricula. Unfortunately, even though AAI has evolved from a rich historical and conceptual base, many educators have been reluctant to incorporate AAI into their schools. To some degree, this difficulty is being addressed by the All Aspects of the Industry Coalition Project funded by the Joyce Foundation. The AAI Coalition Project objectives include documenting and clarifying models in use to implement AAI; preparing a resource guide that informs teachers, administrators, and policymakers about industry work; and conducting workshops and disseminating findings.

The present activity builds directly on the AAI Coalition Project. Drawing from the AAI implementation models and industry work guide produced by the coalition, this project will focus on three areas: (1) identifying curriculum practices and processes that focus on AAI in the long term (two to four years); (2) preparing a practitioner guide that describes these long-term curriculum practices and processes, the ways they are utilized, and under what conditions they have the potential to be most effective; and (3) assisting educators at selected school sites in the implementation of long-term AAI curricula. Information about AAI curricula will be gathered via interviews with educators at selected locations around the United States where AAI long-term curricula are operational.

The analyses we complete will ultimately evolve into a practitioner guide. The guide will describe what we have learned in the identification of long-term AAI curricula that are of value to those who intend to implement AAI in their schools. The guide content will include ways that AAI curriculum content may be identified and organized and sequenced in meaningful ways. Once the guide has been prepared in prototype form,

it will be field tested in conjunction with our AAI curriculum assistance activities. To accomplish this we will identify three to four school sites that are ready to implement AAI curricula. If possible, these sites will be located reasonably close to the Virginia Tech site to reduce travel and time costs. In the selection of curriculum sites, consideration will be given to collaborating with a school group or consortium such as the Southern Regional Education Board's High Schools That Work consortium. During our visits, we will provide educators with assistance in a variety of AAI implementation tasks ranging from determining AAI curriculum content and sequence to helping teachers decide how they can incorporate AAI in their teaching.

Project outcomes will be disseminated in two different ways. At the conclusion of 1996, the prototype practitioner guide will be revised based on field test results and made available for purchase through the NCRVE Materials Distribution Service. Further dissemination of the guide will take place as part of the curriculum assistance activities. Additional dissemination will be conducted through presentations at national conferences (e.g., American Vocational Association and American Educational Research Association) and through the preparation of project-related manuscripts for submission to popular and refereed journals.

In terms of intended audiences, the practitioner guide will be of primary value to teachers of vocational and academic subjects in high schools and technical and community colleges. However, it will also be useful to administrators, curriculum developers, and others who are responsible for implementing AAI in their schools.

Area IV:
Students in Vocational Education

Project DIV.1
Case Studies of Successful Urban Schools

Project Directors: Carolyn Maddy-Bernstein, Mildred B. Griggs, and Thomas R. Wermuth, University of Illinois (Year 2 of 3)

Keywords: exemplary programs; urban schools; educational reform

This project is designed to work with two groups of urban educators—those who have successfully accomplished transforming/reforming their comprehensive secondary schools and those in the early stages of reformation. In 1995, a multisite qualitative case study of four urban comprehensive high schools was conducted. All of these schools have included vocational and technical education in successful reform efforts and are all members of NCRVE's Urban Schools Network.

Each step of this project is guided by a steering committee made up of researchers who focus on urban education issues and practitioners from urban schools. The steering committee conducted three telephone meetings during 1995 along with one fly-in meeting held in August of 1995. It is anticipated that a similar schedule will be maintained during 1996.

A monograph describing the case studies will be submitted to the Center by the end of February 1996 for publication. Additionally, a literature review detailing educational reform efforts involving vocational education and qualitative research methodology, entitled *Case Studies of Successful Urban Schools: A Prelude*, will also be submitted to the Center for publication at that time.

During 1996, the project will focus on completing the third and fourth major deliverables. The third deliverable, also an NCRVE monograph, will be a cross-site analysis of themes that appear to exist in each of the initial four case study sites. In addition, papers on the identified themes will be submitted for presentation at national conferences such as the AVA annual convention or the AERA annual conference.

A draft copy of the fourth major deliverable will also be completed during 1996. This deliverable will be a developmental handbook that we envision will address the needs of practitioners interested in developing, implementing, and evaluating educational reform initiatives in urban comprehensive high schools. This draft document will be utilized by approximately three other members of NCRVE's Urban Schools Network as a guide to implementing educational reform efforts. We anticipate the final copy of this document to be published during 1997.

Area V:
Personnel in Vocational Education

Project DV.1
Preparing Teachers To Design Classrooms That Work:
A Mini-Sabbatical for High School Teachers and Teacher Trainers

Project Directors: Kimberly Ramsey and Cathy Stasz, RAND (Year 1 of 2)

Keywords: school to work; integration; instructional strategies; work skills; professional development

Traditional teacher training and staff development practices pose a barrier to widespread adoption of classroom design principles and teaching practices defined by classrooms that impart generic skills and attitudes. Training and staff development activities leave many teachers largely unprepared to experiment with mixing subject-specific and generic skills, designing situated learning activities, or taking on innovative flexible teacher roles. As a result, new teachers and experienced teachers rarely acquire the skills and worksite experiences they need to design classrooms that offer the perspective of a modern and high-skill workplace. The proposed project asks the question, *What methods might practitioners use to assess and communicate about workplace skills?* Building on previous work on learning and teaching generic skills for the workplace and our current study of skills and attitude requirements for work, the investigators propose a one-year follow-up development project to design and conduct a mini-sabbatical for high school teachers and teacher trainers. The proposed project involves redesigning our research tools for use by practitioners, conducting the mini-sabbatical, and evaluating the mini-sabbatical. The purpose of the project is twofold: (1)

teachers need practical tools to introduce workplace skills into the classroom; and (2) deeper inquiry into vocational–academic integration and school-to-work initiatives is needed as these reforms catch hold.

The primary deliverable is a guide for practitioners and trainers. We will also produce a report aimed toward researchers and policymakers. Other anticipated dissemination activities include presentations at national meetings hosted by American Vocational Association, National Education Association, American Federation of Teachers, American Vocational Education Research Association, and American Educational Research Association. In addition, we will introduce the materials in NCRVE workshops held for its Urban Schools Network and other groups.

Area VI:
Accountability and Assessment

Project DVI.1
At Your Fingertips: Using Data for Program Improvement

Project Director: Karen Levesque, MPR Associates, Inc. (Year 2 of 2)

Keywords: accountability; curriculum/training material

This project will develop a set of training materials for dissemination nationwide. The scope and timing of work for this project has changed somewhat since the original proposal was written. The 1996 deliverables will include (1) a participant's workbook, (2) one train-the-trainer's workshop, and (3) a trainer's manual. Rather than waiting until the end of 1996 to deliver the participant's workbook, the workbook will be completed by June 1, 1996. This will allow project staff to use the completed workbook during the summer train-the-trainer workshop. The trainer's manual will be completed by December 31, 1996.

PART TWO: DISSEMINATION AND TRAINING

As NCRVE enters Year Four of its current grant period, its dissemination and training program has three major goals:

1. better *usability* of products and services by the Center's different audiences

2. improved *accessibility*, especially by practitioners and policymakers

3. increased *visibility* for the Center as a whole and for its products and services in particular

To accomplish these aims, NCRVE's dissemination and training program will emphasize three main strategies:

1. We will devote substantially more resources to translating the results of NCRVE research into a small number of synthesized, targeted, carefully designed products (including *Change Agent*) that highlight and focus NCRVE findings and recommendations.

2. We will undertake a major redesign and upgrading of the NCRVE materials that are widely distributed. These materials include *CenterWork*, *CenterFocus*, brochures, and marketing materials.

3. We will plan and conduct a series of public presentations, including national conferences and policy briefings, designed to highlight NCRVE work and engage a variety of research, practitioner, and policy audiences in discussions about the Center's work.

To help realize these objectives, the Dissemination and Training agenda for 1996 and 1997 will consist of several major initiatives involving the marketing and dissemination of the Center's products; and professional outreach and technical assistance.

Together, these programs combine a wide range of activities mandated by the Perkins Act:

- teacher and administrator training and leadership development
- technical assistance to improve the effectiveness of programs serving special populations
- needs assessment, design, and implementation of new and revised programs with related curriculum material to facilitate vocational–academic integration
- evaluation and follow-through to maintain and extend quality programs
- assistance to programs and states on the use of accountability indicators, including appropriate and innovative performance standards
- delivery of information and services using advanced technology
- development of processes for synthesis of research
- dissemination of exemplary curriculum and instructional materials
- technical assistance in recruiting, hiring, and advancing minorities in vocational education

Dissemination and Training Programs

Dissemination Program

Program Director: Peter F. Seidman, University of California at Berkeley (Year 4 of 5)

Keywords: information dissemination; publications; referral/information brokering

The Dissemination Program is an integral part of the Center's infrastructure, offering to its constituencies a consistent, reliable method of translating and brokering research and development-based knowledge, practitioner-based knowledge, and policy-based knowledge in ways useful to and usable by these persons. In addition, the activities

of the Dissemination Program encourage the development of social networks among all stakeholders, again, so that knowledge is distributed and exchanged in useful, usable ways.

Thus, the Dissemination Program attempts to strike a balance among user-driven responsiveness, targeted dissemination, and social networking, organizing itself around three basic functions: (1) knowledge distribution, (2) knowledge acquisition, and (3) knowledge collaboration. Each of these components uses a varying blend of several approaches, including database development and use, information brokering, publications, promotion/marketing, direct interpersonal linkages, and electronic communications.

Knowledge Distribution

Knowledge distribution is the one-way distribution of knowledge produced by the Center. The Dissemination Program engages in the following activities in order to effectively distribute knowledge to its user communities:

- product review, revision, production, and distribution
- knowledge synthesis
- product and Center promotion/marketing and public awareness

The activities of the Center generate a variety of primary research, development, and training materials as well as materials derived from these primary outcomes, all of which must be made available to educators, researchers, policymakers, business/ industry/labor, and interested citizens. The Dissemination Program operates the Center's product quality assurance and control system, which includes the review, revision, production, and distribution process for the Center, resulting in the distribution of quality materials.

The NCRVE Materials Distribution Service (MDS) edits, does camera-ready preparation of, produces, markets, and distributes all primary and most derived documents funded by the Center. MDS also summarizes and reviews NCRVE products for subscribers to *Change Agent*, a self-sustaining newsletter produced in its entirety by

MDS. MDS operates as a partially subsidized (as compared to true cost-recovery) entity. MDS is operated under subcontract with Western Illinois University.

An electronic archive of selected Center publications is supported as a component of VocServe, the Dissemination Program's public-access bulletin board system. The Dissemination Program will continue to offer Center publications and other information via alternative electronic means, such as file transfer protocol (ftp) archives, gopher servers (maintained by NCRVE and/or other organizations such as AskERIC), and World Wide Web (WWW) servers.

Derived Materials

Derived materials result from a formal translation process that develops spinoffs from project outcomes, or summarizes and synthesizes materials useful to and usable by the Center's user communities. Formats include such approaches as newsletters, brochures, briefs, working papers, and information packets.

Promotion/Marketing and Public Awareness

The Dissemination Program has the task of marketing both the Center's publications and the Center itself. The Dissemination Program uses both printed materials and other marketing tools such as conferences, an 800 telephone line, electronic "advertising," and a Public Information initiative. Printed materials include periodicals, brochures, information packets, various publications promoting Center documents, the complimentary distribution of documents to targeted audiences, and advertorials (institutional advertisements in large publications such as *Education Week*).

The Dissemination Program provides a publicity venue for the entire Center through publication of a brochure, which describes the entire Center; a yearly *Agenda* and *Human Resource Directory*, which respectively describe the Center's mission and areas of work, and the Center's personnel and their areas of expertise; and conference display booths. The *Products Catalog*, topical mini-catalogs, and *New Publications* flyers (mailed quarterly to targeted audiences) promote NCRVE publications across all programs. The Public Information initiative generates press releases, product advertisements, pitch letters, and other such materials, as well as manages their wide distribution to regional and national audiences.

Knowledge Acquisition

Knowledge acquisition involves assisting the Center's customers to access information. The Center will use the following major technologies to implement knowledge acquisition:

- information brokering
- national vocational education databases
- electronic communications

Information Brokering

The overall mission of information brokering is to operate as an intermediary for a variety of information services, products, and human resources, brokering information to educators, researchers, policymakers, and business/industry/labor.

To carry out brokering's mission of providing access to a variety of information services and products, the Dissemination Program will

- search Center-maintained databases.
- seek resources, data, and information over electronic networks.
- participate in partnerships with relevant information clearinghouses (e.g., as an ERIC Partner in the ERIC Clearinghouses on Adult, Career, and Vocational Education).
- maintain a referral network among all Center sites.

The Dissemination Program maintains an 800 number for brokering. The other major channel for brokering requests as well as responses is through electronic communications. This brokering capacity is achieved through VocServe and VOCNET as well as through membership in major electronic discussion groups.

Electronic Communications

Electronic communications is used to receive information requests, to respond to these requests, and to seek information for customers in need of such information for

decision making. The Dissemination Program maintains its own public bulletin board system (VocServe); two listservs—VOCNET and DISSMN8; a file transfer protocol (ftp) archive; a gopher server; and a World Wide Web (WWW) server. Additionally, memberships are maintained in pertinent electronic discussion groups and other systems managed by other organizations.

Electronic communications are used in a number of ways to deliver information. For example, Center events and products (conferences, R&D reports, videotapes) are marketed via electronic media as well as described on the Center's web server; requests for information are received and answered electronically; and more extensive data in electronic form (e.g., datasets, texts of publications) are electronically archived, accessible to all users of an electronic network.

Knowledge Collaboration

Knowledge collaboration promotes the multiway flow of Center-produced knowledge. Electronic communications and linkages with other key knowledge transfer networks are the key implementing approaches the Center will use in encouraging this flow.

Electronic Communications

The Center promotes and facilitates the exchange of information among itself and its user communities by electronic means. The Center manages its own listserv, VOCNET, as well as participates in other Internet discussion lists and in existing practitioner networks in order to maintain contact with those user groups.

The VocServe System

The knowledge collaboration facilities of the VocServe system distribute knowledge; assist the Center's customers to access information; and result in shared experience in which the distinction between knowledge producer, translator, and user becomes irrelevant.

Internet

VOCNET provides a major forum for discussion of vocational education issues for Internet listserv users. The Dissemination Program staff also participates in relevant

Internet discussion groups which deal with education and training issues. Through such memberships, the Center monitors discussions, participating as appropriate—drawing into the discussions interested Center staff.

Practitioner Networks

Through its participation in practitioner networks, the Center shares in user-driven discussions. The Center encourages such users to communicate directly with Center persons (via VocServe if possible), while simultaneously transferring outcomes of such discussions to relevant Center personnel, encouraging them to communicate directly with the practitioner networks. The Dissemination Program encourages collaboration among the state/regional systems themselves via VocServe.

Linkages with Other Key Knowledge Transfer Networks

The Center collaborates with other key knowledge transfer networks in order to more effectively integrate knowledge producers, transfer agents, and users into a shared effort at developing and using knowledge generated through formal dissemination activities.

The Dissemination Program will continue to maintain and strengthen linkages with the following entities:

- the OERI Regional Laboratories
- the ERIC Clearinghouses on Adult, Career, and Vocational Education; Junior Colleges; Rural and Small Schools; and Urban Education
- the Council for Educational Development and Research
- the Education Writers Association
- the National Diffusion Network
- the National Dissemination Association

Deliverables

- *CenterWork*—NCRVE's quarterly newsletter

- *Change Agent*—NCRVE's quarterly digest of Center publications
- Advertorials placed quarterly in *Education Week*
- *Products* catalog and smaller topical products catalogs: revised quarterly
- *New Products Flyers* targeted to specific audiences; sent quarterly
- Press releases: number and timing dependent on publication or event's timelines
- The *Reprint Series* of published journal articles, book/monograph chapters, op/ed pieces, and so on, based upon NCRVE-funded activities: number determined by articles published and forwarded to the Dissemination Program
- *Working Papers Series*: number determined by not-contracted papers written and forwarded to the Dissemination Program
- *The 1996 Agenda for the National Center for Research in Vocational Education* abstracts all Center activities: published as soon as possible after federal approval of yearly grant.
- *The Human Resource Directory* lists contact information for and expertise of all Center professional staff: published as soon as possible after federal approval of yearly grant.

Professional Outreach Program

Program Director: Susan L. Faulkner, Virginia Polytechnic Institute and State University (Year 4 of 5)

Keywords: professional development; conferences

NCRVE is committed to a Professional Outreach Program that will assist secondary and postsecondary educators and will offer researchers, policymakers, and practitioners from both vocational and academic programs the opportunity to develop their professional capabilities.

The Professional Outreach Program staff continues collaborative efforts between the Center and other national organizations involved in professional outreach activities at both the secondary and postsecondary levels. The following activities will extend the cooperative relationships in the Center's Professional Outreach Program network.

Skill Standards Conference

A Skill Standards Conference will be sponsored by the Center (See Skill Standards Invitational Conference description in "Other Dissemination and Training Projects"). The audience will be people working on skill standards and academic standards, representatives from the U.S. Department of Labor and the U.S. Department of Education, and the National Skill Standards Board (invited).

AACC Presession

A presession will be held at the annual American Association of Community Colleges Convention in April 1996. The presession is entitled "Linking Community Colleges to Work-Based Learning" and is an outcome from research conducted by Debra Bragg and Russell Hamm through the NCRVE site at the University of Illinois at Champaign/Urbana. The purpose of the presession is to (1) discover why work-based learning, a strength of America's two-year colleges and a requirement of the School-to-Work Opportunities Act, is a powerful methodology as documented by the findings of a national research project; (2) acquire a working knowledge of the concept of work-based learning; (3) discuss successful work-based learning models; (4) interact with the nation's best work-based learning program leaders; (5) learn skills to implement a successful work-based learning program; and (6) obtain materials to guide a work-based learning program's development. The presession is cosponsored by the American Association of Community Colleges (AACC), the National Council for Occupational Education (NCOE), and NCRVE.

Technical Assistance System

Technical assistance activities are combined efforts among all Center researchers, development personnel, program staff, and practitioner linkages. Requests for technical assistance are processed through the Professional Outreach Program Office. Program staff have compiled a listing of individuals at Center sites and NCRVE Urban Schools Network sites with their areas of expertise as identified by the National School-to-Work

Office to better facilitate technical assistance efforts. In addition, program staff will oversee the Center's technical assistance activities as a vendor for the National School-to-Work Information and Learning Center.

The New American High School Conference

Program staff will provide technical assistance in planning the New American High School Conference to be held in Washington, DC, in May 1996. The purpose of the conference is to showcase outstanding examples of high schools offering career majors in the context of whole-school reform and to increase policymakers' awareness of these career-related school reform efforts. The audience for this conference is invited policymakers. The sponsors are NCRVE and the U.S. Department of Education. The sponsors are in the process of inviting over 30 national organizations to cosponsor this event.

Calendar of Events

Program staff will compile a 1996 Calendar of Events listing all conferences sponsored and cosponsored by the Center. In addition, program staff will continue to maintain a computerized database of a National Calendar of Events related to work-related education conferences/workshops/meetings. The National Calendar will be accessible through the NCRVE Web server.

NCRVE Urban Schools Network Technical Assistance

Program staff will provide technical assistance to the NCRVE Urban Schools Network as requested by the Urban Schools Network Director.

Community College Network

During 1996, program staff will plan and conduct an advisory meeting to organize a community college network based on the concept of the Center's Urban Schools Network. Program staff collaborated with Norton Grubb and Norena Badway at the NCRVE site at the University of California at Berkeley, and Debra Bragg, NCRVE site at the University of Illinois at Champaign/Urbana, in writing and submitting a preproposal to the Fund for the Improvement of Postsecondary Education to further fund the Community College Network.

Professional Linkages

Program staff will continue establishing professional linkages with other organizations throughout the nation. Linkages with more than 30 national organizations will be nurtured through inviting these organizations to cosponsor The New American High School Conference to be held at The Capital Hilton in Washington, DC, in May 1996. A meeting of the cosponsoring organizations will be held in Washington, DC, in the spring of 1996. In addition, program staff have scheduled presentations by Center researchers during 1996 at the following conferences: National Association of Secondary School Principals (NASSP); National School Conference Institute (NSCI); Integration of Academic and Vocational Education Conference in Beaver Creek, Colorado; American Association of Community Colleges (AACC) Conference; Careers Conference sponsored by the Center on Education and Work; and the American Vocational Association (proposal submitted). Program staff will continue to submit proposals for presentations at additional conferences.

Deliverables

- Skill Standards Conference
- AACC Presession
- Updated listing of individuals (and their areas of expertise) at Center sites and NCRVE Urban Schools Network Sites that are Technical Assistance Providers
- The New American High School Conference
- 1996 NCRVE Sponsored and Cosponsored Calendar of Events
- 1996 Database of Selected National Calendar of Events

Office of Student Services

Program Director: Carolyn Maddy-Bernstein, University of Illinois (Year 4 of 5)

Keywords: school to work; student services; special populations; guidance and counseling; information dissemination; publications; conferences

NCRVE's Office of Student Services (OSS)—the former Office of Special Populations—works to promote quality programs and services that assist *all* students at the secondary and postsecondary levels, including members of special populations, to successfully transition from school to work. The 1996 goals of the Office of Student Services are to

- encourage systems change so that student services, which are based on the developmental career needs of all students, become an integral part of the educational process.
- promote exemplary/model program activities and the adoption of model practices.
- identify and/or design effective methods of communication and dissemination.
- foster collaboration through networks of professionals and teams of educators.
- promote accountability programs that are based on the wise use and management of information.

Activities

The following activities, listed by objective, have been suggested by the OSS Advisory Committee and adopted by OSS staff:

1. Encourage systems change so that student services, which are based on the developmental career needs of all students, become an integral part of the educational process.

1.1. Design and conduct professional development workshops that assist educators in developing and implementing a comprehensive student services program in their schools. Target audience will be participants to the NCRVE Urban Schools Network summer institute, those attending the American Vocational Association Annual Conference, and at least one other major national conference. (See corresponding Activity 3.1.)

1.2. As a part of the OSS national search for exemplary career guidance and counseling programs (see corresponding Activity 2.1), the staff will continue to identify and disseminate model programs that use Individual Career Plans (ICPs)

or career portfolios, especially those that include a section for listing the services necessary for the student to reach her or his career goal.

2. Promote exemplary program activities and the adoption of model practices.

2.1. The OSS staff, in collaboration with the U.S. Department of Education and the State Supervisors of Guidance and Counseling, will conduct a search for exemplary career guidance programs in 1996 and 1997.

A one to two day national conference for counselors, teachers, administrators, and other professionals will be conducted prior to or during an appropriate national conference or as a preconference to the American Counseling Association Conference. This conference will feature exemplary career guidance and counseling programs identified through the search.

2.2. Information about exemplary programs (e.g., program descriptions and contact information) will be disseminated through (1) news releases distributed to state directors, state career guidance and counseling coordinators, personnel responsible for special populations, guidance counselors and members of other associations that OSS collaborates with, and other relevant federal and national agencies on the OSS' mailing list; (2) a monograph developed by staff and made available through the NCRVE Materials Distribution Service describing the named exemplary programs; (3) materials and other handouts distributed through the Office of Student Services; (4) announcements submitted to over one-hundred newsletters subscribed to by career guidance professionals, and to relevant electronic bulletin boards and listservers; and (5) programs presented by staff at regional and national conferences.

2.3. The OSS staff, in collaboration with network facilitators, will conduct site visits to at least two member schools of the NCRVE Urban Schools Network to observe and record barriers and facilitators to delivering student services. (The sites will be carefully selected for their ability to deliver services.) The staff will compile information from the site visits to be used in the workshop(s) as well as a handbook of student services. (See corresponding Activities 1.1 and 3.1.)

2.4 The OSS staff will develop an *OSS BRIEF* that highlights a model school-to-work transition program for students who are at risk.

3. Identify and/or design and implement effective methods of communication and dissemination.

3.1. Develop and field test in the NCRVE Urban Schools Network a handbook (in loose-leaf format) of student services practices that work, including an evaluation instrument (e.g., checklist) of student services systems targeting administrators, teachers, and counselors. (See corresponding Activity 1.1.)

3.2. In collaboration with the Center for Law and Education and/or other interested parties, the staff will develop an *OSS BRIEF* on the use and management of state block grants.

3.3. The OSS staff will monitor electronic bulletin boards, discussion groups, and approximately 200 newsletters relevant to student services for information on new program improvement resources on an ongoing basis. The staff will select, acquire, and annotate relevant resources and prepare this information for entry into the OSS' computerized information database. This database is also available on-line and through the World Wide Web. Persons interested in the information can conduct their own searches or download previously prepared lists of resources. Those who do not have access to computers or the Internet can obtain the same information by requesting it via mail, telephone, or fax.

The staff will continue to respond to information requests related to student services and vocational education for special populations. (Presently, most requests come from conference participants, telephone contacts, written requests, and electronic networks monitored by staff.) This free resource service will continue to be widely publicized. Upon request, clients will be provided with up-to-date annotated listings of publications and human resources on a variety of topics including the current year's focus.

3.4. Current evaluation methods of the resource service will be continued. These include (1) a boxed note in the cover letter accompanying materials/resources requested asking for feedback on materials received and (2) a separate feedback form to be sent at random to those making requests.

4. Foster collaboration through networks of professionals and teams of educators.

4.1. The OSS will continue to serve as a hub for a network of the state personnel responsible for special populations programs, the state directors of career guidance and counseling, and other student services professionals. The network's purpose is to share information on state activities and resources related to program improvement (e.g., research project reports, state plans, local planning guides, parent involvement materials, staff training resources, curriculum models, and model program descriptions) and to reduce duplication of state efforts.

Relevant materials, resources, and other information obtained from network members and from other sources will be highlighted in four networking letters each year. The *Networking Letter* will be disseminated quarterly to each state administrator of vocational special needs programs and to state career guidance and counseling personnel with copies to the state directors of vocational education. Other appropriate state personnel (e.g., persons in charge of student services) will be identified and added to the network. Each letter will be 6-8 pages long.

4.2. Collaborate with the U.S. Department of Education, the State Guidance Supervisors, and the American Vocational Association to identify exemplary programs. (See corresponding Activity 2.1.)

4.3. The staff will work with regional and national organizations that promote student services activities (e.g., American Counselors Association, Career Development and Transition Division of the Council for Exceptional Children, National Association of Student Personnel Administrators). Collaborative activities will include but not be limited to the following: (1) co-sponsorship of conferences, (2) model program identification, and (3) dissemination of materials.

4.4. The staff will work with the NCRVE Network Teams. (See corresponding Activities 1.1, 2.3, and 3.1.)

5. Promote program accountability based on the wise use and management of information.

5.1. Using a local education agency (LEA) as an example, write an *OSS BRIEF* about accountability that focuses on insuring *all* students are receiving required services.

Deliverables

- Professional Development workshops on *all* students' developmental career needs
- Exemplary career guidance and counseling programs
  - conference
  - monograph
  - public information materials
  - conference presentations
- *OSS BRIEFs*
  - exemplary school-to-work programs for students from high-risk environments
  - use and management of state block grants
  - program accountability ensuring *all* students receive required student services
- Handbook on student services
- Electronic database of student service resources
- Annotated topical lists of student service resources
- Quarterly newsletter for state and other student service professionals

Other Dissemination and Training Projects

CenterFocus

Program Director: Erwin Flaxman, Teachers College, Columbia University (Year 4 of 5)

Keywords: knowledge synthesis; publications

CenterFocus is NCRVE's annual series of six brief syntheses of research and practice knowledge. Each issue is based on NCRVE research and other topics of great concern to the field. The syntheses are developed primarily for practitioners and policymakers.

Deliverables

The following is a list of possible issues to be synthesized in *CenterFocus*:

- Consolidation of youth education and training programs
- The effect of future changes in the nature of work on school-to-work programs
- Teaching language arts to students who will work in a technological society
- Arts education and the business world
- Career counseling for human development
- Strategies for linking various sectors for effective school-to-work programs (schools, community organizations, businesses, government)
- Lessons learned from research and practice in involving employers in school-to-work programs
- Work-based learning
- International developments in school-to-work programs

The editors are also currently identifying specific NCRVE research efforts that can be used as the basis for the briefs in the *CenterFocus* series. In total, six topics will be chosen.

Skill Standards Conference

Program Director: Thomas Bailey, Teachers College, Columbia University (Year 2 of 2)

Keywords: skill standards; conferences; professional development

The Goals 2000: Educate America Act establishes a National Skill Standards Board to oversee the national program of industry skill standards. Over the last two years, NCRVE staff at both Teachers College, Columbia University and MPR Associates in Berkeley have carried out research on skill standards, and we have also launched a program of research on skill standards through four coordinated projects. In addition, work at Teachers College, RAND, and Berkeley during the last several years has been concerned with changing skill requirements on the job.

A two-day conference on skills and skill standards will be planned and will be held in May 1996. We have organized a conference to help the work of the National Skill Standards Board during its early stages by bringing to bear our accumulated experience and the experience of others with whom we have been working and interacting. The conference will be focused on integrating academic standards and industry skill standards. It will make suggestions about how these sets of standards could be more effectively integrated in the future. The audience will be people working on skill standards and academic standards, representatives from the U.S. Departments of Labor and Education, and the National Skill Standards Board (invited).

Deliverables

Written material from the conference will include both the preconference materials and a postconference report similar to the Institute on Education and the Economy (Teachers College) report *A Time for Questions: The Future of Integration and Tech Prep*, published after the 1993 three-day summit on Tech Prep and integration.

Getting to Work: A Guide for Better Schools

Project Director: Gary Hoachlander and Mikala Rahn, MPR Associates, Inc. (Year 3 of 3)

Keywords: school-based learning; school to work; curriculum/training material

The purpose of the project this year is to market the practitioner materials developed last year. *Getting to Work* contains facilitator and practitioner materials focused on the role of the school in school-to-work with an emphasis on developing integrated curriculum. The content builds on NCRVE's collective knowledge of reforming schools through the integration of academic and vocational education. The target audience for these practitioner materials are lead teachers, principals, or administrators working with a group of teachers attempting to organize education around work.

This project will consist of four major tasks.

Task 1—National Conferences

The *Getting to Work* materials will be showcased in an exhibit booth at a variety of national conferences this year. In addition to working in the exhibitor's booth, Mikala Rahn will conduct training sessions using the materials at these conferences. National conferences targeted for exhibiting and training will include both familiar forums in which NCRVE is typically invited to participate and new conferences that include participants that we consider our target markets. NCRVE will participate in the conferences of the following organizations:

- National School Conference (February 1-4 in San Antonio, Texas)
- National Secondary School Principals Association (February 23-25 in San Francisco)
- Association for Supervision and Curriculum Development (March 16-19 in New Orleans)
- American Vocational Association (December 5-8 in Cincinnati, Ohio)

- National Staff Development Council (December 9-11 in Vancouver, British Columbia)

Task 2—Mailings

A mailing of the four-color brochure will be conducted in January 1996. This mailing list will include the Chief State School Officers, SREB sites, JFF's benchmark communities and state consortium members, NCRVE's Urban Schools Network, Superintendents of Great City Schools, education liaisons in the Governor's office, and other potential buyers or disseminators of the product information. The mailings will prompt phone inquiries that will need to be handled by MDS, the NCRVE dissemination team, and MPR Associates.

In addition, Mikala Rahn has been asked to write an article on *Getting to Work* for the *Vocational Education Journal*'s May issue.

Task 3—National Orientation

National leaders in the area of school-to-work transition and school restructuring will be trained in the use of the product. This workshop will be conducted in Washington, DC, for all interested OVAE and National School-to-Work Office staff that may be providing technical assistance to local and state sites.

Task 4—State Conference

On May 6 and 7 in New Orleans, NCRVE will hold a workshop for state-level administrators interested in using *Getting to Work* to provide staff development opportunities for practitioners in their state. NCRVE's purpose for convening this workshop includes three objectives:

1. To train state-level administrators in how to use the *Getting to Work* materials with groups of practitioners in their state. Workshop participants will select two modules in which to be trained as trainers.

2. To share existing models of providing technical assistance statewide.

3. To solicit the commitment of a few states to work with NCRVE to develop professional development activities in their states.

Deliverables

The project will produce marketing materials and an article for the *Vocational Education Journal*.

Technical Assistance to the Vocational Education Consortium of the Southern Regional Education Board

Project Director: Gary Hoachlander, MPR Associates, Inc. (Year 4 of 5)

Keywords: accountability; integration

NCRVE will continue to provide evaluation and technical assistance services to the Vocational Education Consortium of the Southern Regional Education Board (SREB), which includes over 400 sites in 21 states. These sites represent the single largest group in the country actively pursuing a variety of strategies for improving vocational education such as curriculum integration, emphasizing high-level math and science instruction, changing teacher expectations, and stressing performance-based accountability.

MPR staff will (1) design an overall data collection strategy and survey instruments; (2) collect and analyze data reported by participating sites; and (3) prepare reports to sites, states, and the Consortium as a whole. Additionally, MPR Associates actively participates in the SREB Annual Summer Workshop, its fall and spring follow-up workshops, and periodic SREB board meetings.

Performance Measures and Standards Clearinghouse

Project Director: Gary Hoachlander, MPR Associates, Inc. (Year 1 of 1)

Keywords: accountability; all aspects of the industry; assessment; data analysis: school transcripts; data analysis: unemployment insurance data; information dissemination; performance measures/standards; referral/information brokering; skill standards

The purpose of the project is to develop and maintain a clearinghouse on accountability that monitors what states are doing with performance measures and standards and that shares this information with states and local education agencies. In addition to information on states' performance measures and standards, the clearinghouse will include information on related topics such as assessment, ways in which states are operationalizing AAI, and their experience with using various data sources such as transcripts or unemployment insurance data. As information on business and education skill standards develops, this information also will become part of the clearinghouse.

Further, the clearinghouse will maintain a mailing list of secondary and postsecondary contacts in each state and will periodically update local and state personnel on new information. Staff will also be provided to answer inquiries by phone or electronic mail.

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